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RESEARCH ARTICLE

Aligning regional and business strategies: Looking inside the Basque Country entrepreneurial innovation ecosystem

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Abstract

The current socio-economic scenarios have generated several challenges for any organization. Regional authorities have designed policies that combine supply–demand needs and innovative entrepreneurship programs. The alignment between regional and business strategies has become critical to ensure the necessary resources, skills and capabilities in the region. This article analyses the alignment of regional strategies (entrepreneurial innovation ecosystems) and business strategies (development of new entrepreneurial innovations). By adopting mixed theoretical approaches, we proposed a conceptual model to understand the role of institutional strategies on the definition of business strategies. Given the nature of this study, our methodological design combines a case study approach and an action research approach. Our results provide insights into the positive outcomes generated when regional strategies and business strategies are aligned.

KEYWORDS

Basque Country, corporate entrepreneurship, entrepreneurial innovation ecosystems, institutional economics, open innovation

1 | INTRODUCTION

The current social and economic scenarios have generated several challenges for any organization located across the globe. Several authors have recognized that we currently were embroiled in uncertain times (Soros, 2008; Stiglitz, 2010). In Europe, a good example is the allocation of public resources on mechanisms for stabilizing the economy, kick-starting growth, and tackling systemic risks. This allocation strategy holds particular significance when the business density in European countries is integrated by small and medium-sized enterprises (SMEs) that contribute 66.5% of employment and 57.8% of the gross added value generated by the private sector (Foray et al., 2012). In this vein, it is essential to acknowledge the critical role played by SMEs on entrepreneurship, innovation, employment and economic growth. Therefore, the entry, the exit and survival rates are strongly related to the quality of environmental conditions (Porter, 1980; Urbano, Guerrero, Ferreira, & Fernandes, 2019).

Both policymakers and academics have paid attention to the ecosystem conditions that encourage entrepreneurial innovations and high-potential entrepreneurship (Guerrero & Urbano, 2019). In the European context, policymakers have encouraged the smart specialization on sectors/technologies as a strategy to be competitive and entrepreneurial (Foray et al., 2012; Mccan & Ortega-Argilés, 2015), and configure entrepreneurial innovation ecosystems (Autio et al., 2014; Acs, Estrin, Mickiewicz, & Szerb, 2017). In this vein, several academics have provided insights about how authorities design policies by combining mechanisms that support supply–demand needs and by configuring the most favorable conditions to boost innovative entrepreneurship (Autio et al., 2014; Foray et al., 2012;

Guerrero, Herrera, & Urbano, 2019). During the last 5 years, the entrepreneurship literature has focused on the elements that integrate entrepreneurial innovation ecosystems (Acs et al., 2017), as well as on the contribution of diversity in entrepreneurship across contexts (Urbano et al., 2019). However, little is known about the way policymakers' strategies and organizations' strategies are aligned, as well as about the required regional and organizational capabilities (Bast, Carayannis & Campbell, 2015; Guerrero, Urbano, & Herrera, 2019; Leydesdorff, 2012).

This article analyses the alignment of regional strategies (entrepreneurial innovation ecosystems) and business strategies (development of new entrepreneurial innovations). By adopting mixed theoretical approaches, we proposed a conceptual model to understand the role of institutional strategies (Acs et al., 2017; North, 1990) on the definition of business strategies such as open innovation (Chesbrough, 2003) or corporate entrepreneurship perspectives (Antonic & Hisrich, 2003). Given the nature of this study, our methodological design consists of two phases: (1) a case study methodology (Eisenhardt, 1989; Yin, 1984); and (ii) an action research methodology (Greenwood & Levin, 1998). Two levels of analysis integrate our research setting: at the regional level is the Basque Country (Spain), and at the business-level is the spin-off created by two SMEs located in the Basque Country. According to De Otazu & Díaz (2008), the Basque Country has been identified as an innovative, risk-taking and entrepreneurial region throughout history. The Basque entrepreneurial ecosystem is characterized by an entrepreneurial mindset, the ability to identify opportunities, supporting infrastructure, a record for 2016 attracting talent/investors and conditions to access to international markets (Porter, Ketels, & Valdaliso, 2012). Given these characteristics, in the recent financial crisis, the Basque Country had one of the lowest unemployment rates in Spain (Orkestra, 2013; SPRI, 2012). Our results provide insights into the positive outcomes generated when regional strategies and business strategies are aligned.

The article is organized as follows: Section 2 introduces the theoretical framework. Section 3 describes the methodology used in the study. Section 4 addresses the results obtained in this exploratory study. Section 5 discusses the findings in light of previous studies. Section 6 shows the implications for decision-makers and introduces further research.

2 | THEORETICAL FRAMEWORK

2.1 | Regional strategies and entrepreneurship ecosystems

In this manuscript, regional strategies are understood as the planning of actions/activities developed/implemented by regional governments to achieve their expected goals or satisfy the specific needs of the region (Blackburn & Schaper, 2016). Institutions are the pillar of any regional strategy. This section explores the influence of institutions on the emergence of regional strategies as well as the influence of institutions on the configuration of entrepreneurship ecosystems.

2.1.1 | An institutional perspective

According to North (2005), institutions are the driving forces behind social and economic development. Entrepreneurship literature recognizes the role of institutions fostering entrepreneurial activity and producing an impact on the development of a region (Urbano et al., 2019). Institutions are defined as "the rules of the game in a society" or, "the constraints that shape human interaction" (North, 1990: p. 3). In this vein, there are formal institutions (laws, norms, regulations) and informal institutions (attitudes, values, culture). By adopting an institutional approach, it is possible to understand the conditional factors that influence entrepreneurial activity, as well as that shape entrepreneurial ecosystems in each region (Aidis, Estrin, & Mickiewicz, 2008; Audretsch & Keilbach, 2004; Guerrero & Santamaría, 2020; Guerrero & Urbano, 2011; Urbano et al., 2019). Any entrepreneurial activity involves the perception of opportunities (Liñán, Urbano, & Guerrero, 2011; Guerrero, Rialp, & Urbano, 2008), and channels which allow individuals/organizations to access the resources they need to carry out that innovative or productive action (Baumol, 1993). According to Welter (2012), the environmental conditions that directly influence the individuals' intentions/actions are *regulations* (market, commercial, financial), *norms* (accepted values, behaviors and social standards) and *cultural-cognitive rules* (which represent how things are done).

By focusing on regulations, policymakers from advanced economies have experienced a gradual shift away from a "managed economy" towards an "entrepreneurial society" which creflects possible productive and social transformation through entrepreneurship (Audretsch, 2007). Consequently, governments have allocated public resources in the design/implementation of several strategies, policies and programs to promote regional growth efficiently via innovation and entrepreneurship (Guerrero & Urbano, 2019). The regional smart specialization strategies promoted in the European Union during the last years is an example of aligning regional capabilities and regional priorities (Foray et al., 2012). The government initiatives for fostering entrepreneurship and innovation (European Commission, 2010; Europe 2020 Strategy) have also contributed to the development of entrepreneurship ecosystems' elements, as well as the interconnection among actors involved in the regional system (Acs et al., 2017; Autio et al., 2014; Cohen, 2006; Isenberg, 2010; Urbano et al., 2019).

2.1.2 | An eco-system perspective

An ecosystem (ecological system) comprises a biotic community, its physical environment, and all the interactions possible in the complex of living and non-living components (Tansley, 1935). Moore (1993) translated this concept into the management field as a metaphor for positioning the significance of relationships and interaction among suppliers, investors and customers for developing business activities.

Then, Isenberg (2010) introduced this terminology into non-academic entrepreneurship audiences. Even though there is no consensus about the entrepreneurship ecosystem definition, previous studies have some conceptual agreements such as the interdependent relationships between different entrepreneurial actors that support entrepreneurial activities (Acs et al., 2017; Brown & Mason, 2017). According to Mason & Brown (2014, p.5), an entrepreneurial ecosystem could be understood as "a set of interconnected entrepreneurial actors (potential and existing), entrepreneurial organizations (firms, venture capitalists, business angels, banks), institutions (universities, public sector agencies, financial bodies) and entrepreneurial processes (business birth rate, high growth firms, serial entrepreneurs, entrepreneurial ambition) which formally and informally coalesce to connect, mediate and govern the performance within the local entrepreneurial environment" (p.5).

Based on this definition, Stam (2015) proposes a model that includes institutional arrangements (formal institutions, culture and networks), resource endowment components (the physical infrastructure, finance, leadership, talent, knowledge, intermediate services and demand elements), and the outputs (new value creation and captured by productive entrepreneurship). By analyzing the accumulation of knowledge about the ecosystems' elements, Cao & Shi (2020) argue that three logic constructs integrate regional entrepreneurship ecosystems: the interaction logic that emphasizes the importance of structures and interactions among these structures (infrastructures, networks); the resource logic that underlines the allocation of resources and outcomes (the need, the access, the allocation); and the governance logic that recognizes the necessity of system- and agent-driven perspectives to unlock entrepreneurship-driven economic growth (design, implementation, agents, governance). Following these perspectives, the design and implementation of regional strategies are aligned to the proposed model of Stam (2015 and 2019), the constructs proposed by Cao & Shi (2020) as well as to the evolutionary stages of entrepreneurial ecosystems (Cantner, Cunningham, Lehmann, & Menter, 2020). The literature has provided the foundations at the macro-level perspective which involves actions, strategies and contributions at the country or regional level. However, the micro-level perspective implies an in-depth analysis about how these general actions, strategies and contributions are made possible by the design of specific actions and strategies of business actors.

2.2 | Business strategies and entrepreneurial innovations

In this manuscript, business strategies are understood as the fundamental characteristics of the match that a new/established organization achieves among its resources, its capabilities, and the opportunities/threats in its internal/external environment that will enable it to achieve their goals/objectives (Chrisman, Hofer, & Boulton, 1988; p. 414). Environmental conditions are crucial for designing/implementing business strategies, particularly if regional strategies represent new business opportunities or access to resources for enterprises. This section analyses the definition/implementation of business strategies based on the influence of regional strategies, institutions and ecosystems' elements.

2.2.1 | An open innovation perspective

Entrepreneurial innovations occur as a result of interaction among different players (Autio, Kenney, Mustar, Siegel, & Wright, 2014; Guerrero & Urbano, 2019; Von Hippel, 2009). On the one hand, by the influence of uncertain environmental conditions, SMEs are not able to generate, manage and transfer knowledge/technologies. In these scenarios, an open innovation strategy allows small and medium-sized organizations to share risks/resources, develop entrepreneurial innovations, and capture value (Chesbrough, 2003; Gassmann, Enkel, & Chesbrough, 2010; Guerrero & Urbano, 2019). In this vein, an open innovation strategy represents the ability of SMEs to collaborate with different agents involved in the regional entrepreneurial ecosystem (Autio et al., 2014; Chesbrough, 2006). On the other hand, regional strategies may positively influence the sensing, seizing and transformation capabilities of new/established businesses (Teece, 2012). We assume that the alignment of open innovation strategies to the regional strategies allows the exploration of new entrepreneurial and innovation opportunities (sensing), the access to resources and capabilities required to exploit these opportunities from partners (i.e., universities, scientific centers, industries, public infrastructures and financial agents) involved in the entrepreneurial innovation ecosystem (seizing), and the reconfiguration of business models based on the new entrepreneurial innovation (transformation).

Under the open innovation perspective, there is a higher probability of achieving the goals/objectives of both regional strategies from governments and business strategies from new/established business (Chesbrough & Crowther, 2006; Van de Vrande, De Jong, Vanhaverbeke, & De Rochemont, 2009). Consequently, open innovation collaboration among actors enrolled in the entrepreneurial innovation ecosystem may generate externalities as regional capabilities that allow spillover effects as well as profitable outcomes (Autio et al., 2014).

2.2.2 | A corporate entrepreneurship perspective

Corporate entrepreneurship represents the development of new entrepreneurial initiatives (i.e., the creation of corporate ventures under the organizational umbrella) as well as new entrepreneurial strategies (i.e., strategic entrepreneurship like the entry into new markets with new products/services) carried out by existing organizations to sustain competitive advantage (Antoncic & Hisrich, 2003; Burgelman, 1983; Covin & Miles, 1999; Guth & Ginsberg, 1990; Kuratko & Audretsch, 2013). In this vein, corporate entrepreneurship literature has found diversity in business strategies such as diversification (Burgelman, 1983), internal/external innovation processes (Guth & Ginsberg, 1990), the development of new products, new processes

and administrative innovations (Covin & Miles, 1999), as well as the creation of ventures (spin-offs/start-ups) (Díaz, Guerrero, & Peña-Legazkue, 2015; Guerrero, & Peña-Legazkue, 2013; Guerrero & Peña-Legazkue, 2019).

As with any business strategy, corporate entrepreneurship will be highly influenced by external environmental conditions and internal resources/capabilities (Antoncic & Hisrich, 2003). Therefore, new/established firms located in regions characterized by favorable conditions towards entrepreneurship and innovation are more likely to develop corporate entrepreneurship initiatives (Bosma et al., 2013). The most favorable regional strategies for entrepreneurial innovation may significantly influence the re-definition of SMEs' corporate entrepreneurship strategies. It implies the development of entrepreneurial innovations aligned to the strategic priorities/objectives defined into regional policies, programs or initiatives. Consequently, at the organizational level, SMEs may develop an entrepreneurial culture as well as achieve a sustained competitive advantage (Bosma et al., 2013; Guerrero, Amorós, & Urbano, 2019). At the regional level, corporate entrepreneurship practices generate value added to the customer, increase competitiveness and economic growth (Antoncic & Hisrich, 2003).

2.3 | Proposed conceptual model

Adopting the theoretical basis of institutional economics (North, 1990), entrepreneurial ecosystems (Acs et al., 2017; Stam, 2015), open innovation (Chesbrough, 2003), and corporate entrepreneurship (Antonic & Hisrich, 2003), Figure 1 shows the proposed conceptual framework.

First, at the macro-level, the conceptual model helps us to explain how governments design regional strategies (actions, activities, allocation of resources, and goals) based on the priorities and the current institutional conditions. Directly or indirectly, these regional strategies will influence the (re)configuration of the entrepreneurial innovation ecosystem's elements (market, funding, culture, policies, human capital and business landscape, among others). Second, at the micro-level, the model helps us to explain how new/established organizations design business strategies (actions, activities, goals) based on their resources and capabilities and influenced by the external conditions (institutions, ecosystems and strategies in their region). Directly or indirectly, these regional strategies will influence business strategies during the exploration of entrepreneurial innovation opportunities, access to public/private resources in collaboration or alone, and the re-definition of their business innovation models depending on open innovation or corporate entrepreneurship practices. Consequently, the alignment of regional strategies and business strategies will achieve their specific goals, as well as generate impact upon the regional innovation/entrepreneurial ecosystem (what is known as an inverse or two-way relationship).

3 | METHODOLOGY

Given our research objective, our methodological design consists of two phases: (a) a case study methodology (Eisenhardt, 1989; Yin, 1984); and (b) an action research methodology (Greenwood & Levin, 1998). Two levels of analysis integrate our research setting: at the regional level is the Basque Country (Spain) and at the business-level is the spin-off created by two SMEs located in the Basque Country.

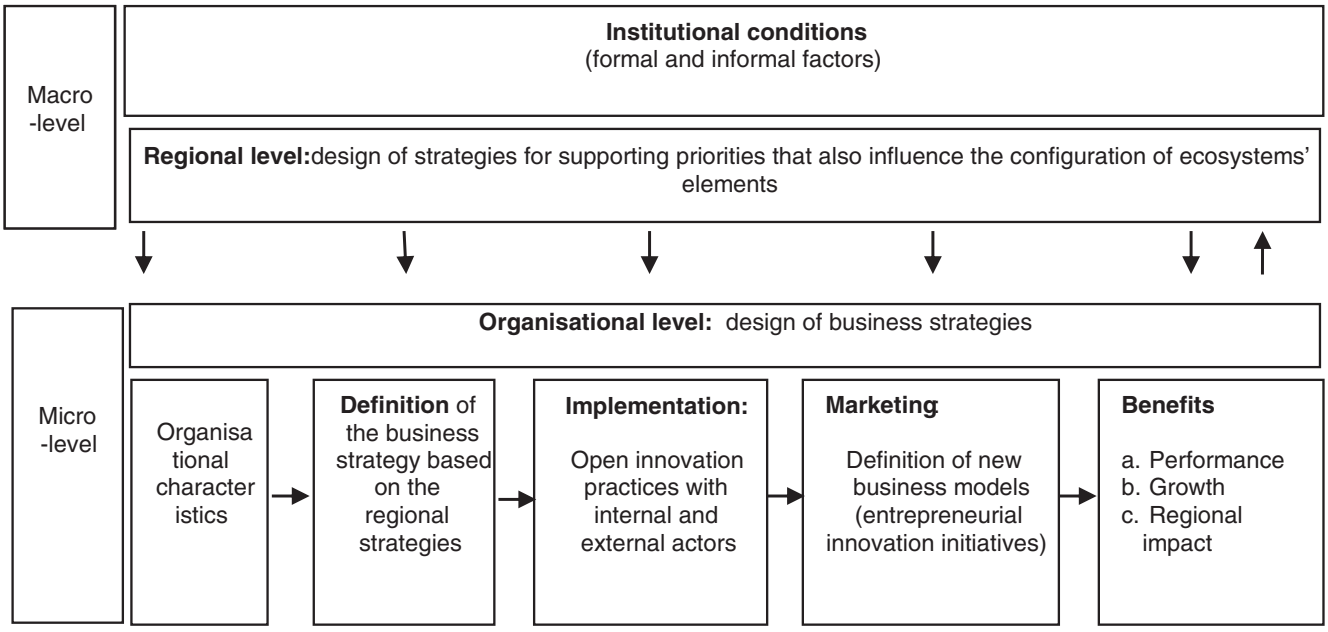

FIGURE 1 Conceptual framework. *Source*: Based on North (1990), Stam (2015), Acs et al. (2017), Chesbrough (2003) and Antonic & Hisrich (2003)

TABLE 1 Companies' profile

	Company A	Company B
No. of employees	22	41
Date created	1994 (spin off—distributor)	1980 (originally 1952)
Location	Region of Bidasoa	Region of Bidasoa
Sector	Furniture (handles)	Furniture (metal structures)
Type of legal entity	Limited company	Limited company
Markets	Local/Europe (Germany)	• Local/America (USA)
Commitment to the region	• Promotion of local artists • Social inclusion projects (inclusive design) • Preservation of local employment (breaking up the manufacturing process—centralizing value-added activities)	• Company renowned in the region for its use of technology • Preservation of local employment (relocation—centralizing value-added activities)
Interviewees 90–120 minutes	Entrepreneur (A1) Manager (A1)	Entrepreneur (B1) Manager (B1)
	OPEN ADF consortium • Potential: Intrapreneur (open ADF) and intra-manager (open ADF) • Local development agency: Three professional agents • Research centers: Three researchers • Users: Three elderly users	

Source: Authors.

3.1 | Qualitative approach (case study—Phase 1)

Phase 1 focused on the case study methodology for understanding issues that are complex and have yet to be studied in depth (Gartner & Birley, 2002). A case study methodology helps us to explore the regional strategies implemented in the Basque Country as well as the challenges faced by SMEs when aligning business strategies with regional strategies/policies (Eisenhardt, 1989; Glaser, Eisenhardt, Gioia, Langley, & Corley, 2018; Yin, 1984).

Regarding the data collection, validity and reliability were ensured by collecting information from several sources. At the regional level, we used external sources of information that allowed us to identify the evolution of the regulatory frameworks in Europe, Spain and the Basque Country (see Table A1). Concretely, we combined official documents (Basque Country, SPRI, European Commission), regional reports sponsored by the government about entrepreneurship, innovation and competitiveness (Navarro, Valdaliso, Aranguren, & Magro, 2013; Orkestra, 2013), and publications (González-Pernía, Guerrero, & Peña-Legazkue, 2015; Porter et al., 2012). At the organizational level, the criteria to select the participating SMEs were: (a) interested in using open innovation practices as a diversification mechanism, (b) have shown a strong commitment towards the region when developing new business models, and (c) interested in the regional strategies applied in the Basque Country (Antoncic & Hisrich, 2003; Gassmann et al., 2010). We collect information using: (a) semi-structured interviews with two entrepreneurs, two managers and 11 agents of the OPEN-ADF Consortium (researchers, local development agents, users) with a duration of around 90–120 min based on a semi-structured protocol; (b) internal sources from the SMEs such as brochures, financial reports and estimates were consulted; and (c) external sources such as reports from official organizations which are related to the company. Table 1 shows the main characteristics of the two SMEs analyzed that created "OPEN-ADF."

Regarding the data analysis, a database was created with the information obtained from interviews and secondary information at regional and organizational levels. A logical, inductive, and triangulation analysis was developed (Eisenhardt, 1989; Glaser et al., 2018; Yin, 1984). Concretely, the triangulation helps us to triangulate the perception of interviewees with secondary sources of information. In this vein, the data analysis enabled us to assess the diversification needs of each SME, as well as its alignment with policies/strategies in the region.

3.2 | Experimental approach (action research—Phase 2)

We complement our case study methodology by applying the action research approach. Action research is an established research method in social sciences (Lewin, 1946; Neergaard & Ulhøi, 2007; Perry & Zuber-Skerritt, 1992; Sankaran, Dick, Passfield, & Swepson, 2002) that adopts an abductive perspective. Even though it has been heavily criticized (Bawden & Zuber-Skerritt, 2002; Coghlan & Brannick, 2001; Eden & Huxham, 1996; Greenwood & Levin, 1998; Kotnour, 2011), the abductive perspective is a method to test new ideas or to make sense of new situations. Previous studies have used this methodology for understanding the role of political entrepreneurship (Björkman & Sundgren, 2005), as well as how entrepreneurial ecosystems are built (Heikkilä & Kuivaniemi, 2012).

Action research combines participants (OPEN ADF Consortium) and researchers (university and research center) to provide a balance between practical experiences and theoretical explanations (Neergaard & Ulhøi, 2007). During 12 months, action research approach was used to understand/learn how two SMEs' entrepreneurs/managers adopted smart specialization regional strategies in the Basque Country (social inclusion) as part of their open innovation strategy (collaboration with entrepreneurial innovation ecosystems' agents such as local development agents, researchers from universities and centers, and potential users) and redefined a business model via a corporate entrepreneurship strategy (creation of a corporate venture). After a diagnosis, the participants employed the universal design to define a value proposition (Waller, Bradley, Hosking, & Clarkson, 2013) which promotes the social inclusion of the elderly population. Open innovation strategy allowed sharing resources/

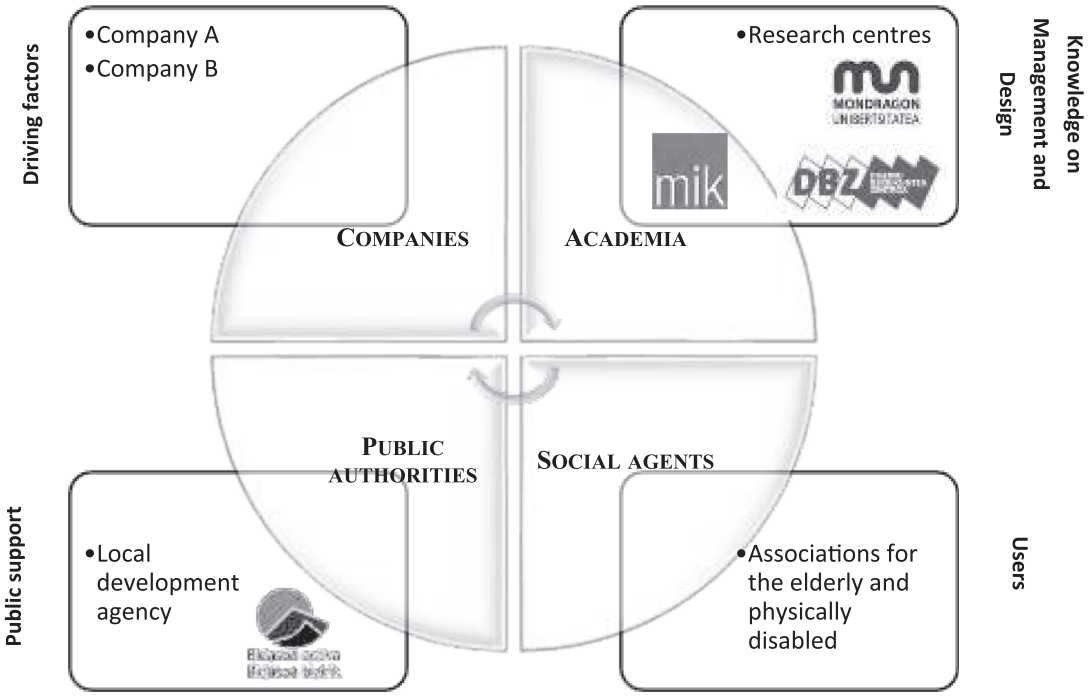

FIGURE 2 OPEN ADF Consortium. *Source*: Authors

capabilities among SMEs, local development agents, university researchers, and users (Benkler, 2006; Chesbrough, 2006; Fosfuri, Giarratana, & Roca, 2014; Poetz & Schreier, 2012), and at the same time provided insights about theoretical approaches (open innovation, corporate entrepreneurship, entrepreneurial ecosystem). Consequently, the action approach increases the empirical/theoretical understanding of the designed entrepreneurial innovations among the OPEN ADF consortium (producers, researchers, customers, public promoters) (Clarkson & Coleman, 2013). On the one hand, the approach meets the goals of regional strategies (offer a suitable way to satisfy the needs of individuals) and the goals of business strategies (covers the customers' needs and business' sustainability) (Waller et al., 2013). On the other hand, the analyzed SMEs discovered the critical role of open innovation for improving business' capabilities and for creating competitive advantages that could be sustained over time (see Table A2).

4 | FINDINGS

4.1 | Antecedents

4.1.1 | Regional strategies and entrepreneurial ecosystem

According to Navarro et al. (2013), after becoming an autonomous Spanish region in 1980, the regional strategies of the Basque Country were defined by the regional government. Three stages characterized the autonomous era of the Basque Country. In the 1980s, the government focused on restructuring the industry. In the 1990s, the government aimed for quality and efficiency in factors affecting competitiveness. In the 2000s, the government strategies centered on R&D, innovation, diversification and international expansion. Over the last decade, government intervention was efficiently coordinated with measures implemented in other regions (the European Community and Spanish State). Promoted by the European Union, the Regional Policy 2020 was oriented towards smart growth based on a smart specialization strategy (SEC 1183, EC 2010). In other words, structural funds will be allocated to transform regional economies. The goal is to achieve economic transformation based on an alignment between innovation, research and business initiatives (Basque Government, 2011:65–82). According to this regional strategy, the sectorial diversification will focus on two priority areas: (a) by markets: ageing, the digital world, science industry, transport and mobility, and energy; and (b) by cross-cutting skills: bioscience, advanced manufacturing and nanoscience.

Regarding the ecosystem, the most favorable conditions towards entrepreneurship and innovation in the Basque Country have been physical/professional infrastructures, governmental aids/programs, public policies, while the less favorable conditions have been social norms and entrepreneurship education in primary/secondary schools (Peña-Legazkue, Guerrero, González-Pernía, & Montero, 2019). According to the institutional approach, the majority of formal conditions (infrastructures, policies, public programs) are the most favorable conditions concerning informal conditions (culture and social norms). By contrasting the evolution of regional strategies, we could observe that these strategies have established the bases of the most favorable elements of the entrepreneurial ecosystem (Table A1).

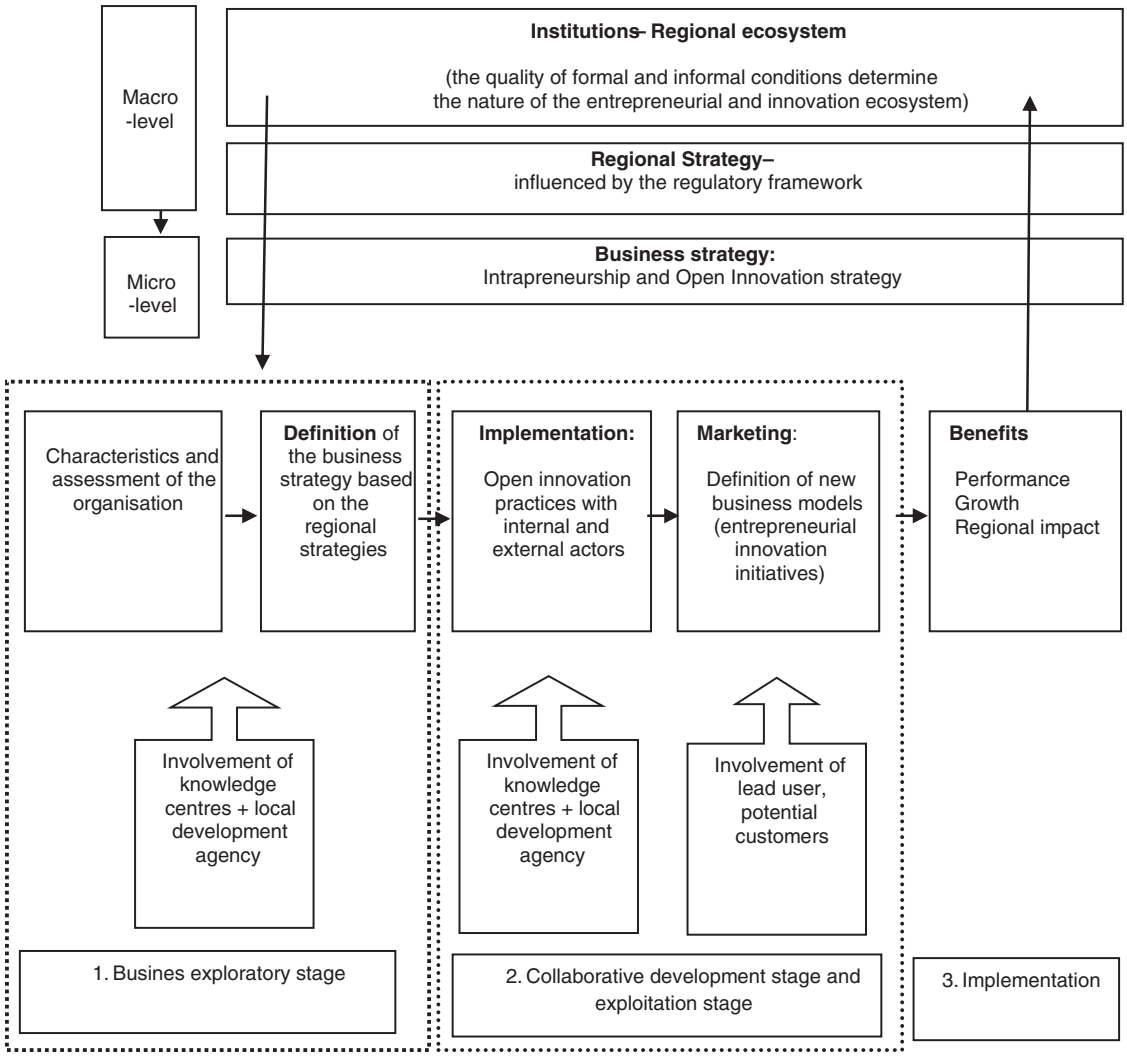

FIGURE 3 Regional and business alignment based on the Open ADF experience. *Source*: Authors based on North (1990), Stam (2015), Acts et al. (2017), Chesbrough (2003) and Antonic & Hisrich (2003)

4.1.2 | SMEs strategies

According to the interviews, once Company A and Company B shared their capabilities, expectations and strategic objectives, both SMEs' managers identified synergies in their aims: the creation of products/services to assist physically disabled customers. This aim has been influenced by the priorities defined by the Basque Government strategies. Based on these synergies, the SMEs decided to create a consortium to reduce risk and optimize investment. Regarding business capabilities, Company A contributes to commercial/networking capabilities, while Company B contributes to technological knowledge. By adopting the premises of the open innovation approach, to ensure the required resources/capabilities, the SMEs created the Open ADF Consortium with the participation of different agents involved in the regional entrepreneurial and innovation ecosystem. Concretely, Figure 2 shows that the Consortium was integrated by the two SMEs (Company A and Company B), university research centers (knowledge producers), a local development agency (public financial support), and several associations for elderly and physically disabled individuals (the potential users). This Consortium implemented two phases: the identification of opportunities (phase 1) and the design of the new collaborative business model (phase 2).

Influenced by the regional strategy, in the first phase (sensing/seizing entrepreneurial innovation opportunities), the consortium explored the physical disability assistance sector. Concretely, this section was related to the design and manufacturing of products/services used to replace, increase, maintain, compensate or improve the functional capacities of individuals with impairments or disabilities (issues with motor, sensory or cognitive ability). In this vein, five actions were implemented: (a) analyzing the new trends of the physical disability assistance sector as well as identifying trains on physical and motor-osteoarticular disorders that affect the upper limbs (García, Jiménez, & Huete, 2002); (b) identifying lead users and players in the sector; (c) determining which physical needs of disabled people are not met and which potential solutions are available on the market (Savage, Nix, Whitehead, & Blair, 1991); and (d) defining the entrepreneurial innovations to be manufactured, the required skills and resources, as well as the new business model.

In the second phase (creating value of entrepreneurial innovation opportunities), the redefinition of the way to capture the value created and the specific market segment were the next stages. On the one hand, the value proposition represented the extended solution designed for each customer. It implied the development of prototypes that should be tested by the end-users. During the project, two functional prototypes were created by adopting co-design and testing sessions with lead users. On the other hand, the customer segment was defined based on the prototypes. The needs of each segment were considered to be hierarchically different. For example, the extreme users (disabled person) respond to deficit needs and require specific prototypes, whereas the average users satisfy their needs with a general prototype (Clarkson & Coleman, 2013). Therefore, it is essential to transfer the entrepreneurial innovations' value into a business model that satisfies the end-user (see value and impact) and the customer/distributor (justification of costs).

In the third phase (implementation), both SMEs carried out an internal analysis of the process for implementing the new business model. This model involves the creation of a new company (an independent legal entity with its rights) with the available resources for starting the entrepreneurial innovation initiative. The implementation/consolidation of the new Open ADF was characterized by critical/challenging elements: ensuring the financial capacity, the definition of an organizational structure, the definition of organizational routines, the inclusion of the consortium partnerships, and a new entrepreneurial innovation business model.

4.2 | Strategic alignment between regional and SMEs

Figure 3 shows the process of aligning regional strategies and business strategies. Diverse stages and participants integrate this process.

At the business level, the managers of both companies developed a strategic reflection process in order to define their priorities and map out their strategic focus. This process included an analysis of the institutional conditions (both globally and in their specific sector) and the current/potential resources and capabilities. It required a strategic focus that would enable them to harness their current strengths, using them as a foundation to build a new competitive advantage and continue to grow and develop. In this study, their strategic objective was to penetrate a specific niche in the market associated with inclusive regional strategies: elderly individuals.

At the entrepreneurial ecosystem level, the premise was to learn/improve entrepreneurial innovation capabilities based on the local development agency requests. Based on individual strategic reflections, companies A and B identified/complemented their resources/capabilities by pursuing a joint business strategy. The local development agency and research centers were focused on ensuring the achievement of the regional strategic priorities. The open innovation strategy helped to diversify their initial strategy with the support of the agents involved in the regional entrepreneurial and innovation ecosystems (Development Agency, Research centers related to management and design, lead users, customers).

The case study helps to reflect on the contribution to regional ecosystems' agents and SMEs actors when they are aligning strategies and objectives by adopting the criteria established by the Basque Science, Technology and Innovation Plan 2015 (*ageing* market as the core priorities). This convergence was made possible by the active participation of actors involved in the entrepreneurial and innovation ecosystem.

5 | DISCUSSION

Aligning regional and business strategies present a significant challenge for players in any entrepreneurial innovation ecosystem (Dalton & Dalton, 2006; Day, 2003). In this vein, our findings show three relevant insights.

Firstly, the critical role of public/private intermediaries in the effectiveness of the entrepreneurial innovation ecosystem. Previous studies have recognized that research centers have been an essential catalyst in socio-economic development (Blast et al., 2015; Isenberg, 2010; Mccan & Ortega-Argilés, 2015; Leydesdorff, 2012; Armanios, Eesley, Li, & Eisenhardt, 2017; Guerrero & Urbano, 2017). In particular, our insights contribute to the academic debate about the effectiveness of public policies (Guerrero, Herrera, & Urbano, 2019; Guerrero & Urbano, 2019) as well as on the crucial role of intermediaries on the evolution of entrepreneurial innovation ecosystems (Cantner et al., 2020; Cao & Shi, 2020). According to Vonortas (2002) and Armanios et al. (2017), intermediaries play a specific and high-impact role by generating a climate of trust which encourages collaboration and improves access to funding, among other benefits.

Secondly, legitimizing the SMEs' contribution to regional development and the United Nations' development goals. Previous studies have provided evidence about SMEs' contribution to employment and GDP (Foray et al., 2012; Urbano et al., 2019). Our findings provide insights about how business strategies (open innovation or corporate entrepreneurship) allow exploring/exploiting opportunities by introducing entrepreneurial innovations that satisfy the end-users needs demanded by inclusive public priorities. The alignment between regional and business strategies also contributes to the achievement of the United Nations' development goals.

Thirdly, proposing a theoretical and methodological design that could be replicated in other regions. In particular, the two-stage qualitative study captures insights from the involvement of ecosystems' stakeholders in open innovation and corporate entrepreneurship strategies in the territory, as well as building theory by contrasting theory with participants' experiences (Eisenhardt, 1989). Assuming a social value perspective, Fosfuri et al. (2014) recognize the development of theoretical and empirical studies to understand and to legitimize the role of users during open innovation practices.

6 | CONCLUSION

This article analyzed the alignment of regional strategies (entrepreneurial and innovation ecosystems) and business strategies

(development of new entrepreneurial innovations). By adopting mixed theoretical/methodological approaches, our conceptual model was analyzed at the regional/individual level in the context of the Basque Country. Our results provide insights into the positive outcomes generated when regional strategies and business strategies are aligned among different agents enrolled in the entrepreneurial innovation ecosystem.

Our study has some limitations that may be the basis for future research agenda. Firstly, the role of intermediaries (local development agency) requires robust analysis, particularly the critical role of intermediaries in helping the economic entities that participate in the process to understand regional strategies. A natural extension of this study is an extended analysis of intermediaries supporting SMEs at national, regional and local levels. Secondly, the participation of market users requires a robust analysis given their substantial contribution during the configuration of the product and implementation of the business strategies. This argument is associated with the idea of an "entrepreneurial society" characterized by the need for productive and social change that should introduce these open innovation practices as part of the business and regional strategies (Audretsch, 2007). Thirdly, a robust analysis of the coherence between business and regional strategies, which has played a crucial role in terms of access to low-cost funding (subsidies), is also required (Guerrero, Amorós, & Urbano, 2019; Guerrero, Herrera, & Urbano, 2019). Another issue to explore is associated with the most challenging task for companies today, that is, gaining access to the resources which are required in order to launch the business strategy. SMEs work on the assumption that coherence between regional and organizational interests can have a positive impact on the process of obtaining such funding. It is essential to note that a critical factor of the assessment that takes place in competitive processes, especially in those which feature the participation of policymakers, is the presentation of business initiatives which directly respond to the strategic challenges of developing a region.

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APPENDIX A.

TABLE A1 Regional strategies based on the regulatory frameworks in Europe, Spain, and the Basque Autonomous Community

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Future
Economic milestones	Euskadi 2000	Treaty of Nice	Euro		Membership			Membership	Economic crisis	Recession				
European Commission	*2000–2006: Information society objectives:* 01: Development of less advanced regions 02: Economic and social restructuring 03: Modernization and adaptation of education systems, training and employment							*2007–2011: Knowledge society objectives:* 01: Regional development 02: Social funds						*2020: Entrepreneurship action plan* Pillars P1: Entrepreneurship education, training to support the creation and growth of companies P2: Create an environment where entrepreneurship can flourish and grow (funding, support at various stages, bankruptcy proceedings) P3. Market leaders and turning attention towards specific groups.
Spain	*Ministry of industry, Tourism and Trade* SME Consolidation and Competitiveness Plan 2000–2006 O1: Develop a culture of innovation O2: Implement ICT O3: Simplified administrative procedures and the creation of advanced companies O4: Facilitate access to funding							*Ministry of Industry, Tourism and Trade* Business Development Plan 2007–2013 O1: Promote innovation O2: Boost entrepreneurial initiative and social recognition (primary school to university) O3: Facilitate and streamline the creation of companies O4: Facilitate access to funding						*Entrepreneurship bill* • Funding • Collaboration between players • Competitiveness • Internationalization
Basque Autonomous Community	*Plan for Competitiveness, Innovation and Knowledge 2000–03 ± Science Technology and Innovation Plan (STIP): Combined Supply and Demand Policy 1997–2005* Department for the Promotion of industry and competitiveness: 1 Innovation 2 Internationalization 3 Investment and employment		*Basque Country Entrepreneurial Society*		*Foro Euskadi (Basque Countr y forum)*			*Plan for Business Competitiveness and Social Innovation 2006–09 ± STIP: Results-oriented policy 2006–10* Department for the Promotion of industry and competitiveness: 1 Industrial relaunch 2 Clusterization program 3 Entrepreneurial activities that hold added value 4 Stimulation of business activity 5 Internationalization		*Business Competitiveness Plan 2010–13 +* Department for the Promotion of industry and competitiveness: 1 Initiatives for a more open economy 2 Initiatives for a more innovative, entrepreneurial and technological economy 3 Initiatives for a sustainable economy			*ECO-Euskadi 2020* Four cross-cutting focuses: 1 Innovation and knowledge 2 Youth on the move. 3 Employment 4 Quality requirements *Smart specialization*

Source: Based on Basque Government (2011), Porter et al. (2012), SPRI (2012), Orkestra (2013), Navarro et al. (2013), González-Pernía et al. (2015).

TABLE A2 Business practices

		Assessment	
Criteria	**Sub-criteria**	**Company A**	**Company B**
Leadership	Management is involved in innovation	Innovation management is a topic which is included in the agenda of the executive board, but the management still does not have significant involvement in innovation activities.	Innovation management occasionally features in the agenda of the executive board.
	Coherence between strategies and managerial behavior	The company is firmly committed to innovation, but collaboration between departments is not promoted in the framework of innovation initiatives.	Collaboration between departments is promoted in the framework of innovation initiatives
	Communication	The organization does not communicate its policy, strategy, objectives and goals with regards to innovation.	Cases in which innovation-related content has been communicated through information provided by management have been few and far between.
	Capacity for change	Several organizational changes have arisen as a result of being required to implement innovation management strategy and policy effectively, but the scope of these has been limited.	Several significant organizational changes have arisen as a result of being required to implement innovation management strategy and policy effectively.
Strategy	Mission and vision	Strategic objectives related to innovation have been set out, but without being translated into Specific action.	Strategic objectives related to innovation have been set out.
	The strategy is outward-looking	In commercial network operations, the most significant events are reported to the company by monitoring procedures. The company also has steady information about the competition and the development of markets. However, it has not systematically identified the environment.	The company has steady information about the competition and the development of markets. When reviewing the strategic plan, the company has taken into account information related to the environment that has been systematically identified.
	Innovation as an essential strategy of the company	The company strategy is proactive with regards to innovation. As a result, the company has launched business initiatives that break the status quo within its sector. It has also identified an opportunity for business diversification, thereby taking advantage of its strengths (*know-how*).	The strategic planning process considers factors related to innovation and technological development, including measures with budgetary appropriation and an estimation as to their impact.
	Coherence between strategy and systems	The procedures for implementing objectives include those related to innovation. However, the systems for measuring performance and recognition do not feature criteria related to innovation.	The management plan outlines interdepartmental objectives with regards to innovation.
People and participation	People management	Innovation needs are identified, but they are not fully incorporated into selection plans: They only consider the development of individuals' innovation skills on an occasional and sporadic basis	Innovation needs are identified, but they are not fully incorporated into selection plans: They only consider the development of individuals' innovation skills on an occasional and sporadic basis.
	Involvement and acceptance of responsibilities	The organization is contemplating the development of more open control systems, where individuals have increased freedom about action and more decision-making power.	The organization is contemplating the development of more open control systems, where individuals have increased freedom concerning action and more decision-making power

(Continues)

TABLE A2 (Continued)

Criteria	Sub-criteria	Assessment	
		Company A	**Company B**
			(initial stages). The tasks assigned to individuals may be either general or specific and have much variety. These involve innovative action.
	Reward and recognition	There is no structured recognition system in place that includes innovation as a factor.	The system for measuring performance in the company features criteria related to innovation And strategic objectives.
	Innovation culture	There is an active culture of experimentation within the company. Innovation is viewed as a responsibility in which customers and suppliers must be involved	Innovation is viewed as being the responsibility of a small team.
	Satisfaction of individuals	There is little or no reference to factors which boost the satisfaction and involvement of individuals	The company is aware of the factors which promote satisfaction within the firm, but innovation does not resolutely feature in the improvement measures.
Collaborative networks	Customer focus	Specific operational agreements are made with the customer in order to improve the quality of service	There is a plan in place to incorporate incentive mechanisms to ensure continued custom. Specific operational agreements are made with the customer in order to improve quality of service.
	Awareness of customer needs	The company has implemented a system for compiling and analyzing customer suggestions and complaints. The company contacts the customer afterwards in order to request information about company innovations and how they respond to their needs	There are stable relationships with current and potential customers in order to understand their needs, as well as gather the relevant information to establish how the customer views the actions of the company.
	Cooperation with suppliers	The company occasionally collaborates with its leading suppliers on projects to improve operations or the development of products and services: Specific operational changes suggested by suppliers have been adopted.	The company has no formal mechanism in place for evaluating the competence of its suppliers. Apart from providing material and technical services, suppliers do not participate in any other projects of mutual interest.
	Collaboration with players in the field of science and technology	No possible opportunities for collaboration with external players or knowledge providers have been identified.	The company has occasional, non-deliberate contact with universities, technology centers and other players in the field of science and technology.
Organization and processes	Organization and roles	The descriptions for managerial responsibilities include tasks that relate to innovation. The company is beginning to use the first multidisciplinary teams involved in innovation on a sporadic basis	The company is beginning to use the first multidisciplinary teams involved in innovation on a sporadic basis.
	Systemic management of innovation processes	The processes for managing innovation have been established, and they include indicators related to performance, although there is no system in place for monitoring implementation	The processes for managing innovation have been established and they include indicators related to performance, although there is no system in place for monitoring implementation.
	Scorecard	There is the sporadic measuring of some critical indicators	Objectives have been established for the main spheres of innovation, and these

TABLE A2 (Continued)

Criteria	Sub-criteria	Assessment	
		Company A	Company B
			are used to make a comparative assessment of the results obtained.
	Generation of innovative ideas	Innovative ideas are collected and analyzed, but they are not managed in a sufficiently structured way	Small-scale experiments are promoted in order to test the feasibility of concepts suggested by employees.
	Innovation in operational processes	Initial work is being carried out into researching and gathering information in order to identify new process technologies	The organization has addressed redesigning its key operational processes by incorporating significant organizational and technological innovations. The company makes continued investment in order to improve operational processes and organize working methods.
	Innovation in the product or service	The company makes small improvements to its range of services. Information is recorded with regards to the quality of service and performance throughout the cycle.	The company regularly launches new ranges of services, incorporating incremental improvements, new features or functions
	Innovation in management processes	The company is starting to research innovative organizational methodologies in order to put them into practice possibly.	The organization has addressed redesign with regards to some of the critical processes of its business management.
Resources	Financial and economic resources	The management plan includes a budget for innovation, but this is employed erratically over time	The management plan includes a budget for innovation, but this is employed erratically over time.
	Infrastructure and equipment	The company has material resources which are underused	The company systemically plans for the addition or renewal of material resources. The company takes full advantage of its material resources, and the rate of use is high.
	Information and communication technology	The scope of ICT is restricted to internal business processes	The company makes significant and continued investment in ICT.
Technology management	The current technology base is exploited	Limited knowledge of sources of external expertise and the possibility of suppliers providing technology	The company has significant knowledge of sources of expertise
	Technology transfer	Little or no contact with sources of technology transfer	Links have been forged with external players in order to receive technology
	Management of Intellectual Property	Property management is an essential element of industrial, commercial or market positioning strategy	The company has made contact with licensing and technology experts in order to evaluate the protection of technological property.
Environment	Market	There is some unverified understanding of the market size, share and segmentation.	There is some unverified understanding of the market size, share and segmentation.
	Competitors	There is some knowledge as to local competitors and appreciation of the strengths and weaknesses of global competition	The company has information about its leading global competitors and the implications are understood, although no response strategies have been formulated.
	Socio-economic context	Changes in consumer trends are analyzed and taken into account when making decisions about services and markets	The company assesses the economic environment in order to ascertain the impact on the business before making decisions.